

Appln No. 10/659,019  
Amdt. Dated March 17, 2005  
Response to Office Action of February 23, 2005

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**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently amended) A method of printing using a high data rate printer architecture, comprising the steps of:

receiving compressed page data comprising both contone data and foreground bi-level data;  
loading at least one of said compressed page data, said contone data, said foreground bi-level data and said composited bi-level color image data into a buffer;  
decompressing said contone data;  
decompressing said foreground bi-level data;  
halftoning said contone data to bi-level color data;  
compositing said foreground bi-level data over said bi-level color data to create composited bi-level color image data; and  
printing said composited bi-level color image data.

2. (Currently amended) A method of printing according to claim 1, further wherein the step of loading at least one of said compressed page data, said contone data, said foreground bi-level data and said composited bi-level color image data into a buffer comprises  
comprises the steps of:

loading said compressed page data into a compressed page buffer;  
loading said contone data into a contone color buffer;  
loading said foreground bi-level data into a bi-level K buffer; and  
loading said composited bi-level color image data into a bi-level color buffer.

3. (Original) A method of printing according to claim 1, further comprising the step of transferring said composited bi-level color image data to a Memjet printhead.

4. (Original) A method of printing according to claim 3, wherein said step of printing said composited bi-level color image data employs a printhead interface unit controlling said Memjet printhead.

5. (Original) A method of printing according to claim 3, wherein said step of transferring said composited bi-level color image data to said Memjet printhead transfers said image data at a constant rate.

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6. (Original) A method of printing according to claim 1, wherein said steps of decompressing said contone data and decompressing said foreground bi-level data occur in real time with said step of printing said composited bi-level color image data.
7. (Original) A method of printing according to claim 3, wherein said step of transferring said composited bi-level color image data to said Mernjet printhead transfers said image data at a rate in excess of 50 Mbytes per second.
8. (Original) A method of printing according to claim 1, wherein said foreground bi-level data is foreground bi-level black data.
9. (Original) A method of printing according to claim 1, wherein said bi-level color data is bi-level CMYK data.
10. (Original) A method of printing according to claim 2, wherein said contone color buffer is a contone CMYK buffer.
11. (Currently amended) An integrated circuit comprising:  
a processor bus;  
purpose-specific functional units each operatively connected to said processor bus, said functional units comprising:  
a JPEG decoder;  
a bi-level decoder;  
a halftoner; and  
a program ROM; and  
a general-purpose processor operatively connected to said processor bus for controlling said functional units, wherein said processor is operative to run software that coordinates said functional units to receive, expand and print pages;  
wherein said purpose-specific functional units further comprise an interface to a pagewidth inkjet printhead which is able to produce in excess of 50 Mbytes/second of bi-level print data.
12. (Cancelled)